

Considering Tyler's Curriculum Model in Health and Physical Education

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Abstract

Tyler's objectives curriculum model has been a strong influence in the field of curriculum development since its publication in 1949. The influence of this model remains strong despite its age, demonstrating the importance of the questions Tyler based his model around. This discussion paper examines Tyler's (1949) objectives curriculum model; particularly its advantages and disadvantages and its current relevance. This analysis will occur with the context of health and physical education subject area.

Keywords: curriculum, health and physical education, objectives

Introduction

The primary purpose of curriculum development is to make sure that students receive integrated and relevant learning experiences that contribute towards their learning, growth and development (Centre for University Teaching, 2009). Historically the task of curriculum development has proven to be neither straightforward nor rapid; rather, a highly vibrant and creative process, which integrates information from a wide range of sources (Smith & Lovat, 1995). In a health and physical education (HPE) context, Tinning, MacDonald, Wright and Hickey (2001) argued that there is no one best way to approach planning due to the variety of teaching locations and purposes. The concept of different models suiting different contexts is certainly appropriate in regards to HPE and the same can be said for other curriculum areas. Numerous models have been put forth over the last 60 years aiming to make this complex task more straightforward. Conventional curriculum theory has developed from a philosophical perspective that separates means from ends in order to maximize efficiency and effectiveness (Cho & Allen, 2005). Tyler's (1949) rationale is the most common example of this and remains influential in the field of curriculum development despite its age.

Tyler's Curriculum Model (1949)

Tyler set a benchmark within the field of education when he published "Basic principle of curriculum and instruction" in 1949. His curriculum model was a response to rising concerns about accountability in education and has dominated curriculum planning since its publication (Beyer & Apple, 1998). The model provided a clear direction for the entire curriculum development process through its clear and precise objectives; and this in turn gave the teacher a clear outline of what they hope their students to achieve. These objectives can be carefully managed, making it easy to monitor attained outcomes (Brady & Kennedy, 2010). Tyler's model can be applied to all learning areas and levels and it is easy to find the appropriateness of a subject's content, activities and teaching methods based on the objective evaluation. The sequence of curriculum elements is logical and the model is useful for easily forecasting final results (Chen, Chen & Cheng, 1996; Brady & Kennedy, 2010). Tyler claimed that by examining learners and their backgrounds, present and future society, and knowledge of the major disciplines; he could determine the preferred characteristics of future citizens. Brady and Kennedy also claimed that Tyler's objectives model had an extremely progressive effect due to the fact that it assumed teacher professionalism and focused attention on improvement of the school curriculum. This encouraged teachers to think about and reflect openly on the educational goals and objectives they had in mind for their students.

The popularity of Tyler's model was revitalised with the introduction of outcomes-based education in the 1990s (Tinning et al., 2001). Despite criticism of the model, Tyler's thinking continues to be popular and his concepts of behavioural objectives, curricular organization, and evaluation are deeply embedded in the standards and accountability movement of the present day. Tyler based his justification for the model around four central questions:

1. What education purposes should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?
3. How can these educational experiences be effectively organised?
4. How can we determine whether these purposes are being attained?

These steps can be simplified to a series of steps moving from the selection of objectives to selecting learning experiences, organising learning experiences and evaluating. His model is considered a technical model because it includes an assessment of the steps that need to be progressed through with respect to the crucial elements of outcomes, content, method and assessment (Brady & Kennedy, 2010). Tyler (1949) stated that the development of objectives is the first step in curriculum planning “because they are the most critical criteria for guiding all the other activities of the curriculum maker” (p. 62). The linear steps are then followed in a logical sequence and the success of teaching is determined in the evaluation phase. Here a judgment is made in relation to whether or not the selection and organisation of subject matter has fulfilled the objectives. Beyer and Apple (1998) claimed that the model represented a factory metaphor in which the students are simply the raw material to be fashioned by the school. While this assessment could be considered harsh, one should consider the suggestion of Arnold (1988). He refined the model and argued that it could be more useful if it was cyclical; and that the stage of evaluation should provide feedback for the future selection of objectives. This is a sound and logical improvement suggestion and would significantly improve Tyler’s model. More recent curriculum models such as the Teaching as Inquiry model (Ministry of Education, 2017) consists of a cyclical format.

Tyler spoke of two forms of integration within the curriculum: vertical and horizontal (Smith & Lovat, 1995). Vertical integration is concerned with experiences in earlier years which are then built upon in later years. This means that the knowledge and skills students had learned in previous years should be deliberately used and extended upon in succeeding years. Alternatively, horizontal integration is concerned with the deliberate linking of subject content from one subject to another. This is one way of trying to break down the invisible walls, separating knowledge between subjects. A common approach is for students to study a theme across multiple subjects simultaneously. One example during a major sporting event such as the soccer world cup involved students studying soccer in health and physical education, the countries their team played against in geography, the national dishes of these countries in home economics, and influential authors and literature from these countries in English. Central to Tyler’s model is the ability to effectively organise the learning activities. He believed that this organisation was an important part of curriculum development as it greatly influenced the efficiency of instruction (Denham, 2002). Tyler believed the three key criteria required in

organised learning experiences were continuity, sequence and integration

Criticism of Tyler's curriculum model

As with all curriculum models, Tyler's objectives model has its disadvantages. Smith and Lovat (2003) argued that the model did not reflect how teachers develop curriculum as in reality this process is constantly changing and evolving. They also believed that the model needed to be more holistic and multidimensional. Indeed Tyler's model might need to be updated to reflect and incorporate more recent changes in education; however, it is not without value. The model reduces the complexity of the difficult task of curriculum planning and development by providing a sequential step by step approach. Admittedly, this positive is only valid if the material being taught can easily be broken down into a step by step process. Difficulty in incorporating material that cannot easily be compartmentalized is a definite weakness of the objectives model. Tyler's model is good for tasks in which there is direct relationship between what teachers want learners to be able to do and the activities they must engage in to achieve these outcomes. HPE has many examples of tasks that fit well within this model because it encourages learning through deliberate practice (Pedersen, Cooley & Cruickshank, 2017). Examples include a basketball free throw and shooting an arrow in archery.

Critics such as Chen et al. (1996) have stated that the model over emphasises measurable objectives and the choice of objectives are often limited to behaviours which can be easily quantified. This means that many moral or ethical objectives, particularly those from the affective dimension such as increasing respect for others cannot be included in measurable objectives and might; therefore, be ignored because they are too difficult to assess. This situation could be an issue in subjects such as HPE that encourage concepts such as teamwork and sportsmanship.

The Tyler rationale has also been criticized for not explaining where the objectives come from (Kliebard, 1995); however, other researchers (e.g., Lounsbery & McKenzie, 2015) stated that Tyler did outline the sources of his objectives, specifically the learners and their needs, experiences and abilities. Metzler (2011) applied this notion to HPE when he stated that the subject is not sustainable in its current form, and that it needs to directly focus on the needs of students. Researchers such as Lounsbery and McKenzie (2015) have stated that aligning objectives and practices with public health priorities would be the most effective way for garnering

public support for the development and improvement of school HPE.

Other researchers (e.g. Marsh, 2010; Hlebowitsh, 2005) have expressed concern that Tyler's rationale was simply a management device designed to reduce teacher creativity and flexibility within the classroom; it ignores the unintended outcomes of learning and could consequently limit inquiry and ingenuity. This excessive rigidity that does not allow for unexpected changes in teaching, location or student responses is another significant weakness of the objectives model. Teachers should be allowed to modify their lesson plans to incorporate the unexpected events that they may encounter. However, it could also be argued that the steps in the objective model's application are precise and logical and can therefore be easily followed by those teachers who are unsure about the curriculum development process.

Tyler's (1949) model forces teachers and curriculum planners to think about their task and its intended outcomes, which in turn makes intentions explicit rather than implicit. While making intentions explicit is important, creative problem solving activities cannot be forced into these outcomes and this can restrict the possible learning of students (Smith & Lovat, 1995). The objectives model also provides little scope for the individual attributes of the pupil, unforeseen changes or responsiveness to unintended learning (Brady & Kennedy, 2010). The model would definitely benefit from mechanisms by which it could accommodate all individual student characteristics. Factors such as cultural differences, physical and mental disabilities, high or low ability levels and even eccentric personalities, do not seem to fit within Tyler's model. These omissions create difficulty for HPE teachers trying to plan inclusive lessons that would benefit their students.

The means-ends planning takes into consideration the long-term view of student outcomes, as developing students' behaviour is the target goal of teaching. This characteristic has been criticised by researchers who believe that these precise outcome statements encourage a view of learning as simply a means to an end (Smith & Lovat, 2003). Kliebard (1995) went even further in his criticism, stating that outcomes are not an obligatory component of the curriculum planning process. Equally critical is McKernan (1993) who stated that to describe education as a set of outcomes "conflicts with the wonderful unpredictable voyages of explanation that characterise learning through inquiry and discovery" (p. 347). While one

can understand the argument of McKernan that the outcomes of teaching are often hard to predict and may well be too complex for educational objectives to fully encompass, many teachers and curriculum developers would have difficulty agreeing with Kliebard. Tyler's model could certainly benefit from an increased flexibility in regards to its outcomes, but to remove them completely would make this and other models unworkable due to objectives being an integral component.

Tyler's (1949) curriculum model has also been criticised for being overly technical and too linear and narrow (e.g., Beyer & Apple, 1998). Tyler states that personal opinions should not affect the choice of the means as efficiency and effectiveness in achieving the ends is the major goal. This means-ends perspective places the ends as both the major reason for the means and also the starting point for planning. A travel metaphor has often been used to support this linear view of means and ends. As travellers decide where they want to go before choosing their route, the same should be done by curriculum planners. Beyer and Apple (1990) advocated for a more democratic relationship between teacher and student as the overly technical approach gave power to teachers, as students did not have any rights in regards to their own learning. This can make it hard for teachers to make activities interesting when they become boring to the student. This model would definitely benefit from curriculum developers involving learners in the development process, so that they can make sure that their needs and interests are incorporated into the planning of their education. HPE has traditionally been taught using a very teacher centred approach (Cruickshank & Swabey, 2013), but the popularity of more recent student centred approaches such as Game Sense and Sport Education suggest this subject is continually evolving.

Conclusion

Tyler has had an enduring effect on what teachers teach, how they teach it and how they assess their students. Tyler's rationale has often been challenged over the last 60 years, but it has endured and his thinking continues to be popular because of its elegant simplicity (John, 2006). Meyer and Apple (1998) also suggested that the major reason for the continued influence of the Tyler rationale is due to its close similarities to societal expectations for schooling and curriculum planning. These expectations or assumptions include schools being places of learning, objectives being developed in terms of desired learning and curriculum being defined in relation to desired learning outcomes. In HPE, and other contexts, the

model could benefit from an increased student input into the learning process and might need updating for present time. Despite the need for these updates, the model still has value in providing sound guiding principles for directing teachers in their curriculum development. As Smith and Lovat (2003) stated “The task of curriculum and the knowledge base upon which it draws is complex and multifaceted [and] it is unlikely ... that any model will be able, in any effective way, to do justice to the complexity of such a task” (p. 113). In light of this, it is likely that curriculum development in HPE and other subjects will continue to benefit from the influence of Tyler’s objectives model for many years to come.

References

- Arnold, P. (1988). *Education, movement and the curriculum*. London: Falmer.
- Beyer, L., & Apple, M. (1998). *The curriculum: Problems, politics and possibilities* (2nd ed). Albany: State University of New York.
- Brady, L., & Kennedy, K. (2010). *Curriculum construction*. Frenchs Forest, NSW: Pearson.
- Centre for University Teaching. (2009). *Curriculum*. Retrieved from <http://www.flinders.edu.au/teaching/teaching-strategies/curriculum-development/curriculum.cfm>
- Chen, C., Chen, Y., & Cheng, K. (1996). *A study on comparing the objective model in curriculum planning between Taiwan and America*. Retrieved from <http://rnd2.ncue.edu.tw/ezcatfiles/b004/img/img/316/96-1-8p.pdf>.
- Cho, J., & Trent, A. (2005). Backward design: What goes around comes around, or haven’t we seen this before? *Taboo: The Journal of Culture and Education*, 9(2), 105-122.
- Cruickshank, V., & Swabey, K. (2013). Yes, we can play games differently: Socialisation of PETE teachers. *Journal of Research*, 7(1), 1-7.
- Denham, T. (2002). *Comparison of two curriculum/instructional design models: Ralph W. Tyler and Siena College accounting class, ACCT205*. Retrieved from <http://ezproxy.utas.edu.au/login?url=http://search.proquest.com/?url=http://search.proquest.com/docview/62202965?accountid=14245>.
- Hlebowitsh, P. (2005). Generational ideas in curriculum: A historical triangulation. *Curriculum Inquiry*, 35(1), 73-87.
- John, P. D. (2006). Lesson planning and the student teacher: Re-thinking the dominant model. *Journal of Curriculum Studies*, 38(4), 483-498.
- Kliebard, H. M. (1995). The Tyler rationale revisited. *Journal of Curriculum Studies*, 27(1), 81-8.
- Lounsbury, M., & McKenzie, T. (2015). Physically literate and physically educated: A rose

- by any other name? *Journal of Sport and Health Science*, 4(2), 139-144.
- McKernan, J. (1993). Some limitations of outcome-based education. *Journal of Curriculum and Supervision*, 8(4), 343-53.
- Metzler, M. (2011). *Instructional models for physical education*. Scottsdale, AZ: Halcomb Hathaway.
- Ministry of Education. (2017). *Teaching as inquiry*. Retrieved from <http://nzcurriculum.tki.org.nz/Curriculum-stories/Case-studies/Teachers-as-learners-Inquiry/Teaching-as-inquiry#top>
- Pedersen, S., Cooley, P., & Cruickshank, V. (2017). Caution regarding exergames: A skill acquisition perspective. *Physical Education and Sport Pedagogy*, 22(3), 246-256.
- Smith, D., & Lovat, T. (1995). *Curriculum: Action on reflection revisited* (3rd ed). Wentworth Falls, NSW: Social Science.
- Smith, D., & Lovat, T. (2003). *Curriculum: Action on reflection* (4th ed). Melbourne, VIC: Thomson.
- Tinning, R., MacDonald, D., Wright, J., & Hickey, C. (2001). *Becoming a physical education teacher*. Frenchs Forest, NSW: Pearson.
- Tyler, R. (1949). *Basic principles of curriculum and instruction*. Chicago, IL: University of Chicago Press.